

February 14, 2024

Magda Little, Ph.D
Director, Oil, Gas and Alternative Energy Division
Environment and Climate Change Canada
Government of Canada

Submitted via methane-methane@ec.gc.ca

Re: Comments on Canada Gazette, Part I, Volume 157, Number 50: Regulations Amending the Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector)

Dear Ms. Little,

With approximately C\$11 billion in assets under management, NEI Investments' approach to investing incorporates the thesis that companies can mitigate risk and take advantage of emerging business opportunities by integrating best environmental, social and governance (ESG) practices into their strategies and operations. We have also made a pledge to align our portfolio with a net-zero by 2050 target. Importantly, we apply this lens to our investments in the Canadian oil and gas sector, where we continue to have material investments. We believe the sector has a significant role to play in helping Canada achieve its net-zero ambitions, and appreciate the opportunity to comment on the regulations proposed in Canada Gazette, Part I, Volume 157, Number 50 (the regulations).

Reducing methane emissions remains the most cost-effective, near-term opportunity for the oil & gas industry to achieve dramatic GHG reductions. We support Canada's 2030 goal to reduce methane emissions from the oil and gas industry by 75% from 2012 levels as one that is both achievable and equitable and is also largely embraced by the industry itself. Care should be taken to ensure the regulations incent the efficient use of capital to achieve the most cost-effective reductions. It is in this context that we share the following comments.

Flaring and Venting

We support the government's ambition to eliminate unnecessary venting but believe the timelines for the venting expectations should be put in place sooner than what has been proposed for new facilities. We do not see any technical reasons why unmitigated venting of methane should be required in any new or proposed facilities. As well, the parameters of the exceptions to meeting the venting requirements should be clarified. We support the exemption on the basis of safety and believe the safety of workers and communities should be paramount. However, it is not clear what would constitute an event that would interrupt the "hydrocarbon gas supply to the public" in the context of the regulations. This exemption seems vague and prone to misinterpretation and should be clarified or simply removed.

Similar to our comments on venting, we believe that the flaring expectations (e.g. the requirement for an engineering study justifying the use of flaring) can be implemented for new facilities sooner than the planned 2027 deadline. Otherwise, the effective dates of the regulation would place Canadian jurisdictions behind relative to regulatory developments in the US and Europe.

Fugitive emissions

The expectation of regular inspection and screening is a proven way of capturing unforeseen fugitive emission releases. As such, we agree with its inclusion. However, the regulation is silent on the role that direct measurement technologies such as airplane surveys, drone technologies or satellite readings might play in meeting these expectations. Though direct measurement technologies have different use cases, the regulations should contemplate how these technologies could play a role in achieving emissions reductions in the most efficient manner possible in instances where these technologies meet the expectations of the regulations, and where they reduce costs for operators. The Methane Centre of Excellence would be an appropriate vehicle to determine where and when these technologies could be appropriately used. While we believe that reducing methane emissions is the most cost-effective opportunity for the oil & gas industry to reduce emissions, we are also cognizant that the inspection expectations in the regulations will be a material cost to operators and every effort should be made to create efficiencies and bring these costs of compliance down.

Performance-based approach

The regulations propose a performance-based approach whereby facilities with continuous monitoring technology would be exempted from the regular fugitive emissions monitoring schedule. We note that industry expressed a desire for performance-based regulations in the consultation process, citing the flexibility to spend capital where it will be most effective in hitting emission reduction targets. In theory, we would agree that the objective of the regulations should be to achieve the most cost-effective reductions that meet Canada's 2030 goal. As such, we feel there should be an opportunity to explore a performance-based approach further but would also express caution in how such an approach is applied. It does not appear that continuous monitoring technology is currently robust enough to catch and quantify methane leaks and in turn to replace the effectiveness of regular monitoring as envisioned in the regulations¹. However, we do believe there is merit in finding ways to support the rapidly evolving development of methane emission technologies. The ongoing evolution of monitoring technology could potentially see marked improvement in technology performance by the time of the proposed effective dates for the regulations. As such we don't believe it is necessary to remove the possibility of a

¹ Bell, C. *et al.* Performance of Continuous Emissions Monitoring Solutions under a Single-Blind Controlled Testing Protocol. *Environ. Sci. Technol.* 57, 14, 5794-5805 (2023). <https://pubs.acs.org/doi/10.1021/acs.est.2c09235>.

performance-based approach from the regulations but the current proposal to exempt operators from the monitoring expectations if they utilize continuous monitoring does require firmer expectations.

To qualify for an ongoing exemption to the regular monitoring and screening expectations of the regulations, operators should be required to provide proof of the efficacy of monitoring systems. This could take the form of a regular inspection schedule as envisioned by the regulations (e.g. quarterly inspections for Type 1 sites) for a prescribed period of time (e.g. one year) to show that continuous monitoring systems are working as expected. Or perhaps the expectation of an annual audit would include directly assessing the efficacy of the continuous monitoring system. Without this level of verification (and improved performance), the current state of continuous monitoring does not appear fit for purpose. There may be other ways to ensure that continuous monitoring technologies could be complementary or used in combination with current monitoring and screening techniques, and we would encourage the government to explore them while keeping a focus on the proven efficacy of the technology.

Perhaps a more fundamental challenge for a performance-based approach is the unreliable picture we currently have of performance itself. Namely, research has consistently identified a material gap between industry-reported methane emissions data and observed emissions data as measured in field studies.² Industry reported data seems to be significantly underreporting emissions. This raises obvious challenges in setting performance-based targets but also highlights the troubling possibility that companies are not allocating capital to the most effective solutions and will not be able to meet the 2030 targets as a result. Subsequent efforts to address this shortcoming will result in further costs incurred. We believe the solution lies in better measurement, monitoring and reporting that meets best practice expectations. We are strong proponents of the Oil and Gas Methane Partnership (OGMP) 2.0 framework and believe the regulations should establish similar expectations for measurement, reporting and verification. It is only once we have reliable performance data that we should consider performance-based regulations.

The current lack of Canadian signatories to OGMP 2.0 should be addressed by the government, with an eye to incentivizing the increase of voluntary participation in OGMP 2.0 prior to the implementation of the regulation in 2027. This could be done through adopting the measuring and reporting expectations of the OGMP 2.0 framework as part of the regulation, or through providing some form of compensatory regulatory relief for companies who have achieved the OGMP 2.0 “Gold Standard” level of reporting. The development of a rigorous measurement-based monitoring system should also be the remit of the proposed Methane Centre of Excellence, along with supporting the further advancement of measurement technologies.

² Conrad, B.M. *et al.* A measurement-based upstream oil and gas methane inventory for Alberta, Canada reveals higher emissions and different sources than official estimates. *Commun Earth Environ* 4, 416 (2023). <https://doi.org/10.1038/s43247-023-01081-0>
MacKay, K. *et al.* Methane emissions from upstream oil and gas production in Canada are underestimated. *Sci. Rep.* 11, 8041 (2021). <https://www.nature.com/articles/s41598-021-87610-3>
Chan, E. *et al.* Eight-Year Estimates of Methane Emissions from Oil and Gas Operations in Western Canada Are Nearly Twice Those Reported in Inventories. *Environ. Sci. Technol.* 54, 14899–14909 (2020). <https://pubs.acs.org/doi/10.1021/acs.est.0c04117>

Thank you again for the opportunity to comment on the proposed regulations. We believe that reducing methane emissions from the oil and gas industry represents the single most cost-effective route for emissions reductions in the near-term and should be leveraged to the greatest extent possible to create the needed runway for addressing the more challenging aspects of the industry's path to net-zero. Please feel free to contact us should you have any questions related to our submission.

Best regards,

A handwritten signature in black ink, appearing to read 'Jamie Bonham', with a long horizontal flourish extending to the right.

Jamie Bonham
Head of Stewardship, NEI Investments